Module 4: Virginia Stormwater Management Program Regulations - Overview

Module 4 Objectives

After completing this module, you will be able to:

- Navigate the Virginia Stormwater Management Program (VSMP) Permit Regulations, and know how to locate the information in the Regulations that pertains to your role in the VSMP
- Apply the Regulations to the administration of a local government VSMP
- Describe the stormwater management plan review process

Module 4 Content

Virginia Stormwater Management Program (VSMP) Regulations - Overview

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The following module is an introduction to the Virginia Stormwater Management Program (VSMP) Regulations.

Virginia Stormwater Management Program (VSMP) Regulations

The following parts focus on the authority and details needed to operate and work within a VSMP

Table 4-1

Part I	Definitions, Purpose, and Applicability
Part II	Administrative and Technical Criteria for Land-Disturbing Activities
Part II A	General Administrative Criteria for Regulated Land-Disturbing Activities
Part II B	Technical Criteria for Regulated Land-Disturbing Activities
Part II C	Technical Criteria for Regulated Land-Disturbing Activities: Grandfathered Projects and Projects Subject to the Provisions of 9VAC25-870-48
Part III	General Provisions Applicable to VSMPs and VSMP Authorities
Part III A	Programs Operated by a VSMP Authority
Part III B	Department of Environmental Quality Procedures for Review of VSMPs
Part III C	Virginia Water Control Board Authorization Procedures for Virginia Stormwater Management Programs
Part IV	Technical Criteria and State Permit Application Requirements for State Projects
Part V	Reporting
Part VI	General Program Requirements Related to MS4s and Land-Disturbing Activities
Part XI	Enforcement of State Permits
Part XIII	Fees

Note: "Shall" means what must be done, and "may" means what can be done.

Part I

Definitions (9VAC25-870-10)

A list of definitions is provided in the Regulations to clarify the meaning of the terms that are used throughout.

Purposes (9VAC25-870-20)

The Regulations provide a framework for the administration, implementation, and enforcement of the Virginia Stormwater Management Act (VSMA) and to outline the procedures and requirements to be followed in connection with state permits issued by the Board pursuant to the Clean Water Act (CWA) and the VSMA and permits issued by a VSMP authority.

Applicability (9VAC25-870-30)

The Regulations apply to:

- Every VSMP authority that administers a VSMP
- The Department in its oversight of VSMPs or in its administration of the VSMP
- Every municipal separate storm sewer system (MS4) program
- Every state agency project regulated and every federal entity project covered under the VSMA and Regulations
- Every land-disturbing activity (LDA) regulated under the VSMA (§ 62.1-44.15:34)
    - ≥ 1 acre
    - ≥ 2,500 square feet in Chesapeake Bay Preservation Areas
    - A more stringent area as included in a locality's ordinance

A **VSMP authority** is approved by the Board to operate a VSMP. An authority may include a locality, state entity, federal entity; or for linear projects, electric, natural gas, and telephone utility companies, railroad companies, etc.

Land-disturbing activity (LDA) means a manmade change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation. (9VAC25-870-10)

Part II – Administrative and Technical Criteria for Land-Disturbing Activities

Part II of the Regulations lays out the general requirements for administering a VSMP, content of plans, and the specific technical criteria for water quality and quantity.

Authority (9VAC25-870-40)

The VSMA requires the Board to adopt regulations that specify the standards and procedures for VSMPs, establish statewide standards for stormwater management for LDAs, and protect property, quality and quantity of state waters, the physical integrity of stream channels, and other natural resources.

Implementation date (9VAC25-870-45)

Starting **July 1, 2014**, Construction GPs must include the technical criteria listed in Part II A and Part II B. Until then, the required technical criteria is listed Part II C.

A **Construction GP** or **General Permit for the Discharges of Stormwater from Construction Activities** authorizes stormwater discharges associated with large and small construction activities through a point source to state waters or through a municipal or non municipal separate storm sewer system to state waters. (9VAC25-880)

General objectives (9VAC25-870-46)

The objectives of the Regulations include supporting state designated uses and water quality standards, and using control measures that minimize impacts on receiving state waters as described in Module 2.

Applicability of other laws and regulations – Time limits on applicability of approved design criteria (9VAC25-870-47)

The Regulations do not limit the applicability of other state or federal laws and regulations, including the CWA, VSMA, Virginia Erosion and Sediment Control Law, and the Chesapeake Bay Preservation Act (CBPA). The Regulations do not limit the rights of state and federal agencies or local governments to impose more stringent technical criteria or other requirements as allowed by law.

9VAC25-870-47B

If a regulated LDA received a Construction GP between July 1, 2009 and June 30, 2014, it must meet the technical criteria of Part II C through two additional five-year permit cycles, with the exception of some government financed projects.

After the two additional permit cycles, or if state permit coverage is not maintained, the portions of the project not under construction shall become subject to the technical criteria of Part II B and any new technical criteria adopted since original state permit coverage was issued.

Grandfathering (9VAC25-870-48)

Until June 30, 2019, any LDA that received locality approval for a conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined to be equivalent before July 1, 2012, but was not issued a Construction GP before July 1, 2014, is grandfathered and subject to Part II C technical criteria. ★ It is important to note that the VSMP authority must find that the document provides for a layout and that the resulting LDA will be compliant with the requirements of Part II C.

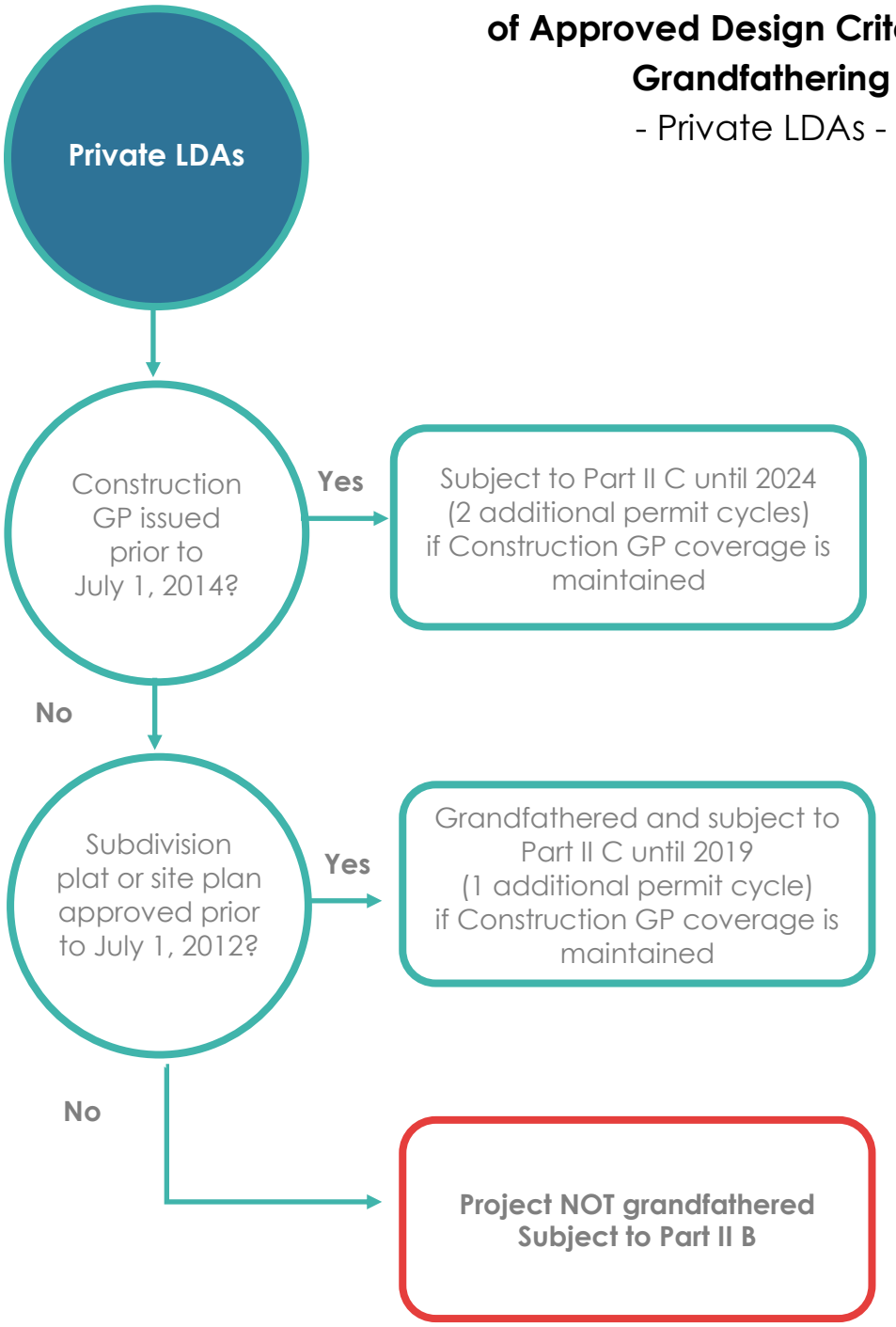
If the plan for the grandfathered project is modified after approval, there can be no increase in the amount of phosphorus (P) discharged through stormwater runoff and no increase in the volume or rate of runoff above that in the previously approved plan.

Grandfathered projects must be completed by June 30, 2019, or portions of the project not under construction shall become subject to the technical criteria of Part II B.

The exception is government projects where bonding or public debt financing has been issued or where local/federal/state funds have been obligated for a project prior to July 1, 2012. Those projects are subject to the technical criteria of Part II C and have no specified time for completion. The flow charts on the next two pages help to explain the time limits.

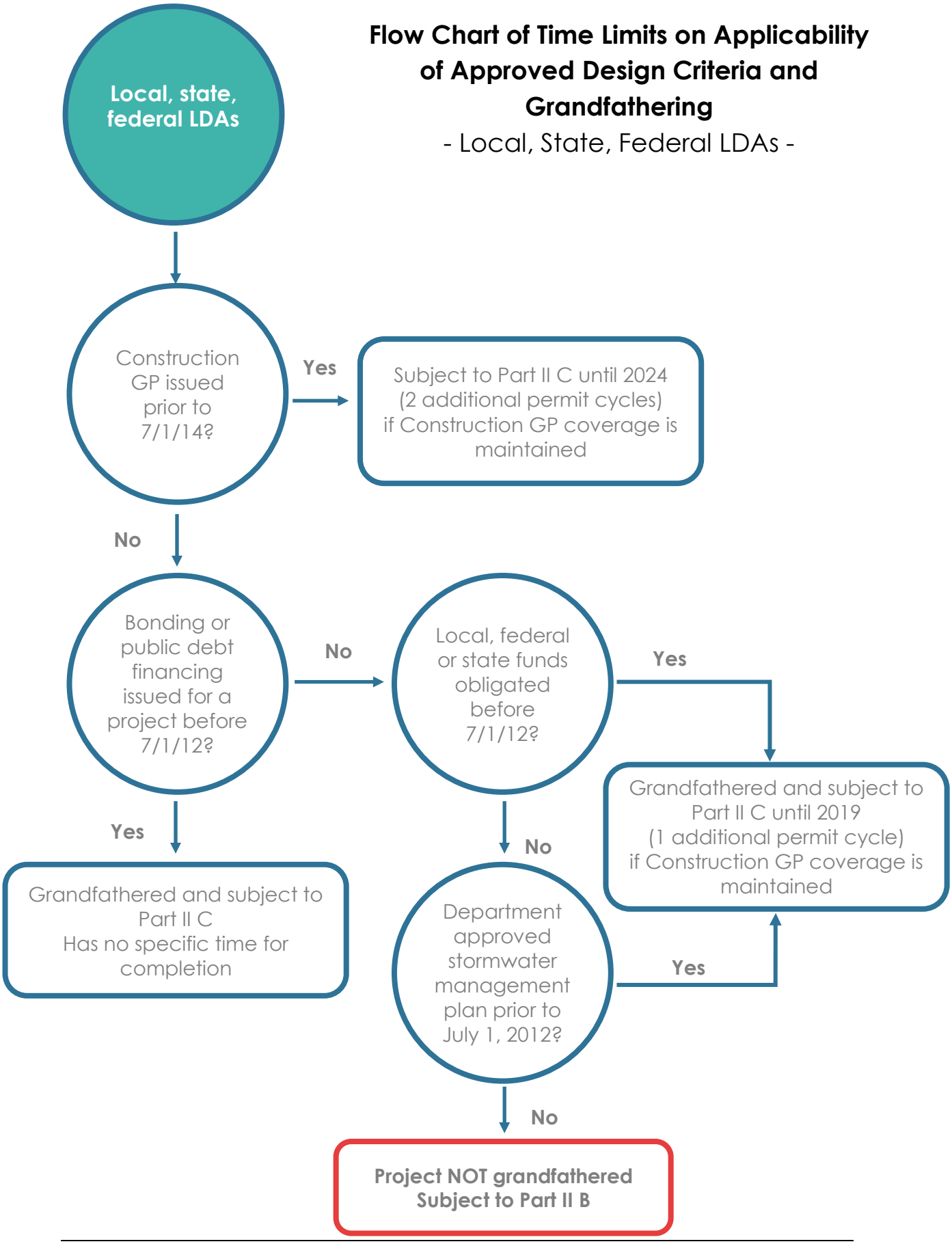
Flow Chart of Time Limits on Applicability of Approved Design Criteria and Grandfathering

- Private LDAs -



Flow Chart of Time Limits on Applicability of Approved Design Criteria and Grandfathering

- Local, State, Federal LDAs -



Chesapeake Bay Preservation Act land-disturbing activity

(9VAC25-870-51)

Chesapeake Bay Preservation Act LDAs do not require completion of a registration statement or coverage under the Construction GP.

However, prior to the start of LDA, the Part II A administrative criteria and Part II B technical criteria must be met.

A **Chesapeake Bay Preservation Act land-disturbing activity** applies to LDAs that result in a land disturbance **greater than or equal to 2,500 sq. ft. and less than one-acre** in all areas of jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations.
(9VAC25-870-10)

Part II Knowledge Check

1. Are local governments able to impose more stringent technical criteria or other requirements than are included in the Regulations?

2. A two-acre LDA received a Construction GP on March 14, 2013. What technical criteria must be met and for how long?

3. What are the exceptions to the question above?

4. What date must grandfathered projects be completed by?

5. If a portion of the grandfathered project is not complete by the above date, what happens?

Part II A – General Administrative Criteria for Regulated Land-Disturbing Activities

Applicability (9VAC25-870-53)

Part II A applies to all regulated LDAs. This part explains the **components of a Construction GP application**. The stormwater management plan review process is detailed later in 9VAC25-870-108.

Stormwater pollution prevention plan (SWPPP) requirements (9VAC25-870-54)

The SWPPP is the cornerstone of the Construction GP and the VSMP. The plan includes prevention measures for both during and after construction. All SWPPPs must contain the following:

1. Approved erosion and sediment control plan
2. Approved stormwater management plan
3. Pollution prevention plan (P2 Plan)
4. Plan specifying any additional control measures to meet the requirements of a TMDL (if applicable)

The SWPPP must address the following nine requirements:

1. Control stormwater volume and velocity within the site to minimize soil erosion
2. Control stormwater discharges, including peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion
3. Minimize the amount of soil exposed during construction activity
4. Minimize the disturbance of steep slopes
5. Minimize sediment discharges from the site through the design, installation and maintenance of controls that address factors such as:
    - Amount, frequency, intensity, and duration of precipitation

- Nature of resulting stormwater runoff
- Soil characteristics, including the range of particle sizes

6. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible
7. Minimize soil compaction and, unless infeasible, preserve topsoil
8. Immediately initiate stabilization of disturbed areas where LDA ceases longer than 14 days; and in arid, semiarid, and drought areas, employ alternative stabilization measures as specified by the VSMP authority
9. Utilize outlet structures that discharge water from the surface of impoundments

Amendments - The SWPPP must be amended whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters and that has not been previously addressed in the SWPPP.

Location - The SWPPP must be maintained at a certain location onsite. If onsite location is unavailable, notice of the SWPPP's location must be posted near the main entrance at the construction site.

Stormwater management plans (9VAC25-870-55)

The stormwater management plan is part of the SWPPP and must be approved by the VSMP authority prior to land disturbance. The plan outlines how stormwater leaving a site after construction will meet the necessary water quality and quantity technical criteria. The plan review process is outlined in (9VAC25-870-108).

The plan must:

1. Apply the appropriate technical criteria to the entire LDA
2. Consider all sources of surface runoff including subsurface flows converted to surface runoff

The plan must include the following elements:

1. Information on the type of and location of stormwater discharges, information on the features to which stormwater is being discharged including:
    - Surface waters or karst features if present
    - Pre-development and post-development drainage areas
2. Contact information including:
    - Name, address, telephone number, and email address of the owner
    - Tax reference number and parcel number of the property or properties affected
3. Narrative including:
    - Description of current site conditions and final site conditions
    - Or if allowed by the VSMP authority, the information provided and documented during the review process that addresses the current and final site conditions
4. General description of the proposed stormwater management facilities and the mechanism through which the facilities will be operated and maintained after construction is complete
5. Information on the proposed stormwater management facilities, including:
    - Type of facilities
    - Location, including geographic coordinates
    - Acres treated
    - Surface waters or karst features into which the facility will discharge
6. Hydrologic and hydraulic computations, including runoff characteristics
7. Documentation and calculations verifying compliance with the water quality and quantity requirements of these Regulations
8. Map(s) of the site that depict the topography of the site and includes:
    - All contributing drainage areas
    - Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains
    - Soil types, karst features if present, forest cover, and other vegetative areas

- Current land use including existing structures, roads, and location of known utilities and easements
- Sufficient information on adjoining parcels to assess the impacts of stormwater from site on these parcels
- Limits of clearing and grading, and the proposed drainage patterns on the site
- Proposed buildings, roads, parking areas, utilities, and stormwater management facilities
- Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements

9. Letter of availability from the off-site provider if using off-site compliance options
10. Fee and fee form if required

Record drawings for the plan must be appropriately sealed and signed by a professional registered in Virginia.

At the completion of the project, a construction record drawing ("as-built") for permanent stormwater management facilities must be provided bearing the seal and signature of a Virginia registered professional, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

Stormwater management facility means a control measure that controls stormwater runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow. (9VAC25-870-10)	**A best management practice (BMP)** means schedules of activities, prohibitions of practices, maintenance procedures, and other best management practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems. (9VAC25-870-10)

Pollution prevention plans (P2 plan) (9VAC25-870-56)

The P2 plan is also part of the SWPPP. It describes the pollution prevention measures that will take place during construction.

The P2 plan must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants during construction.

At a minimum, such measures must be designed, installed, implemented, and maintained to:

1. Minimize discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters
    - Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge
2. Minimize exposure of the following to precipitation and stormwater:
    - Building materials
    - Building products
    - Construction wastes
    - Trash
    - Landscape materials
    - Fertilizers
    - Pesticides
    - Herbicides
    - Detergents
    - Sanitary waste
    - Other materials on the site
3. Minimize discharge of pollutants from spills and leaks, and implement chemical spill and leak prevention and response procedures

P2 plan must include effective best management practices to prohibit the following discharges:

1. Wastewater from washout of concrete, unless managed by an appropriate control
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance
4. Soaps or solvents used in vehicle and equipment washing

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

Requesting an exception (9VAC25-870-57)

- A written request for an exception for the technical criteria in Part II B or Part II C, including the reason for making the request, may be made to the VSMP authority. The request for an exception will be reviewed pursuant to 9VAC25-870-122.

The VSMP authority **cannot** grant exceptions for:

- Economic hardship alone
- Obtaining a state permit

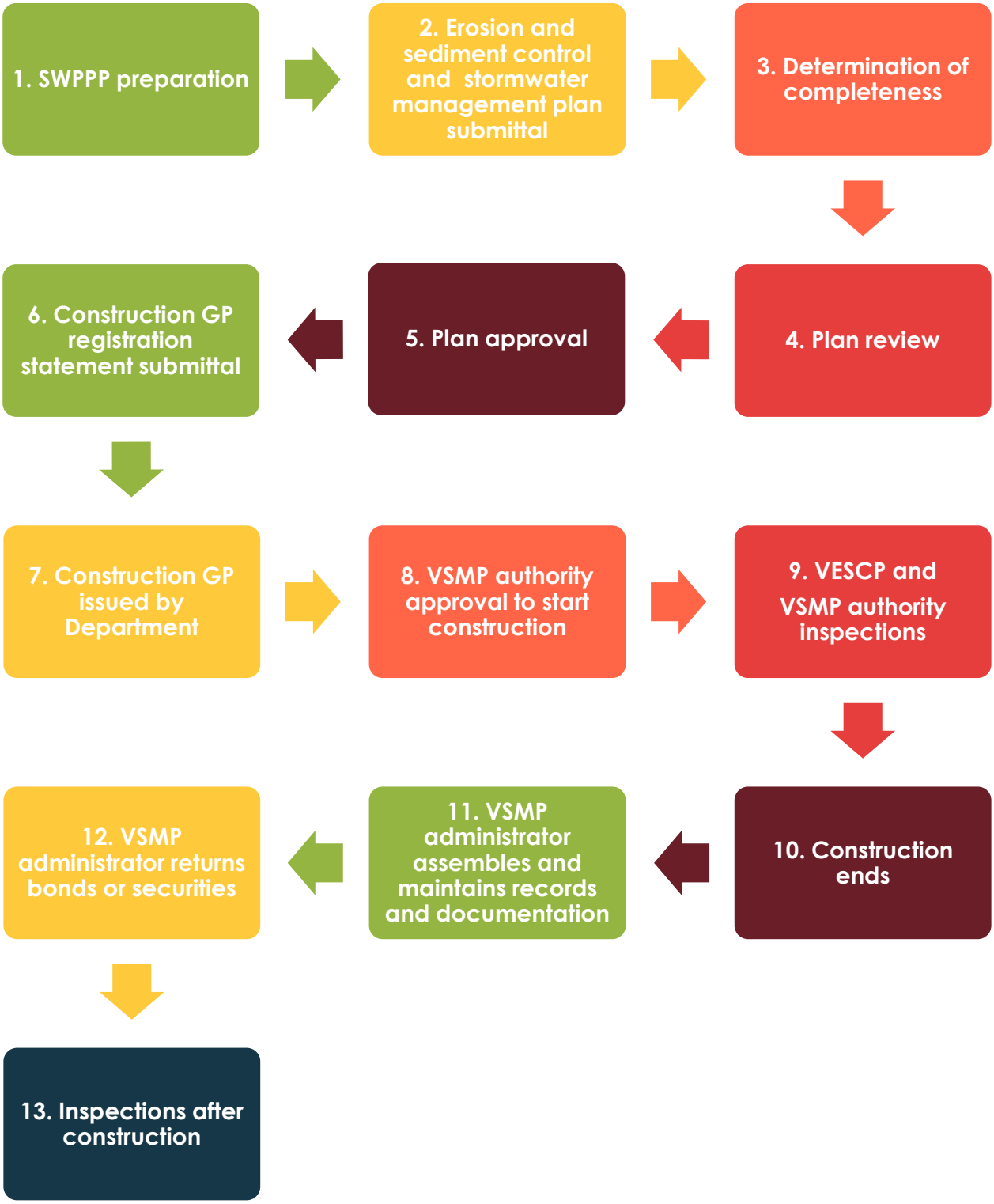
Long Term Maintenance (9VAC25-870-58)

An agreement in accordance with 9VAC25-870-112 for the long-term maintenance of a permanent stormwater management facility must be prepared and submitted to the VSMP authority for review and approval **before** the stormwater management plan can be approved.

Applying for state permit coverage (9VAC25-870-59)

The operator must submit a complete, accurate registration statement on the official Department form to the VSMP authority in order to apply for state permit coverage. The registration statement must be signed by the operator in accordance with 9VAC25-870-370.

VSMP Process



Part II A Knowledge Check

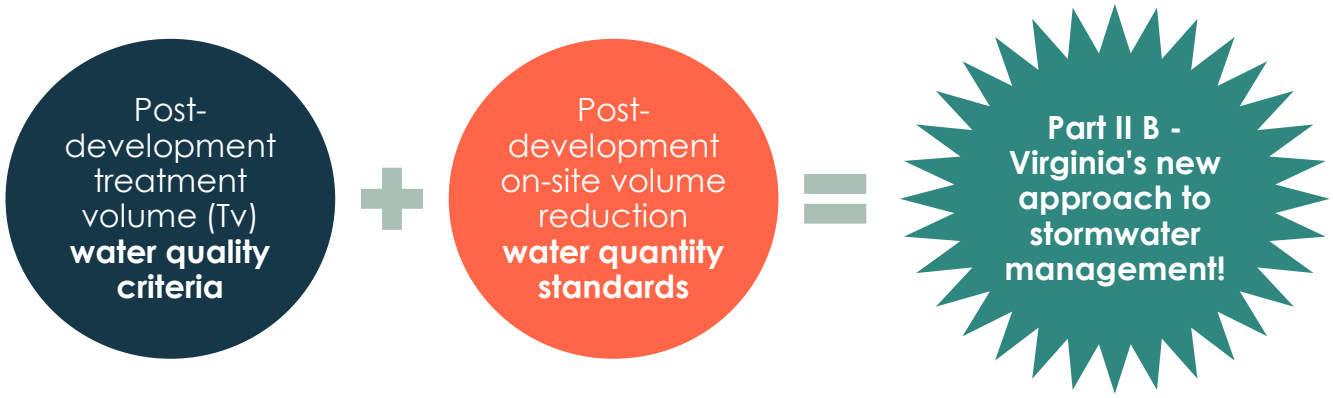
1. What are the four components of a SWPPP?

2. Who approves the erosion and sediment control plan?

3. Which two plans have to be approved before the Department can issue a Construction GP?

4. Which plan within the SWPPP describes the pollution prevention measures that will take place during construction activities to protect waterways?

Part II B – Technical Criteria for Regulated Land-Disturbing Activities



The **goal** of Part II B is to ensure that stormwater runoff at developed sites is managed in such a way that the post-development hydrology and runoff characteristics closely resemble the pre-development over a wide range of rainfall events. As a result, improving water quality and preventing the erosion and flooding of downstream channels.

This part of the Regulations addresses Virginia's new approach to stormwater management by establishing post-development **treatment volume (TV)** criteria, which represents the volume of runoff that must be reduced and/or treated to achieve compliance with the water quality design criteria below in 9VAC25-870-62, and post-development onsite **runoff volume reduction** standards that must be met to achieve compliance with the water quantity standards below in 9VAC25-870-66.

The water quality and quantity objectives of this part are integrated into the Virginia Runoff Reduction Method (RRM) compliance calculation spreadsheet. By meeting the requirements of the RRM, a BMP's treatment for water quality is improved and runoff volume is reduced.

Chapter 10 of the 2013 Virginia Stormwater Management Handbook covers the three BMP sizing criteria that apply to this part of the Regulations: treatment volume, receiving stream channel protection, and overbank flooding protection. The chapter provides the scientific reasoning for the specific criteria selected for inclusion in the Regulations.

The BMP Clearinghouse at **vwrrc.vt.edu/swc** contains the design standards and specifications for the approved stormwater best management practices (BMPs) that can be used to control post-development stormwater quality and quantity.

Applicability (9VAC25-870-62)

Part II B establishes the minimum technical criteria that must be used by a state agency or a VSMP authority to protect water quality and quantity.

Water quality design criteria requirements (9VAC25-870-63)

In order to protect the quality of state waters and to control the discharge of stormwater pollutants from regulated activities, the minimum design criteria and statewide standards in Table 3-2 below for stormwater management must be applied to the site.

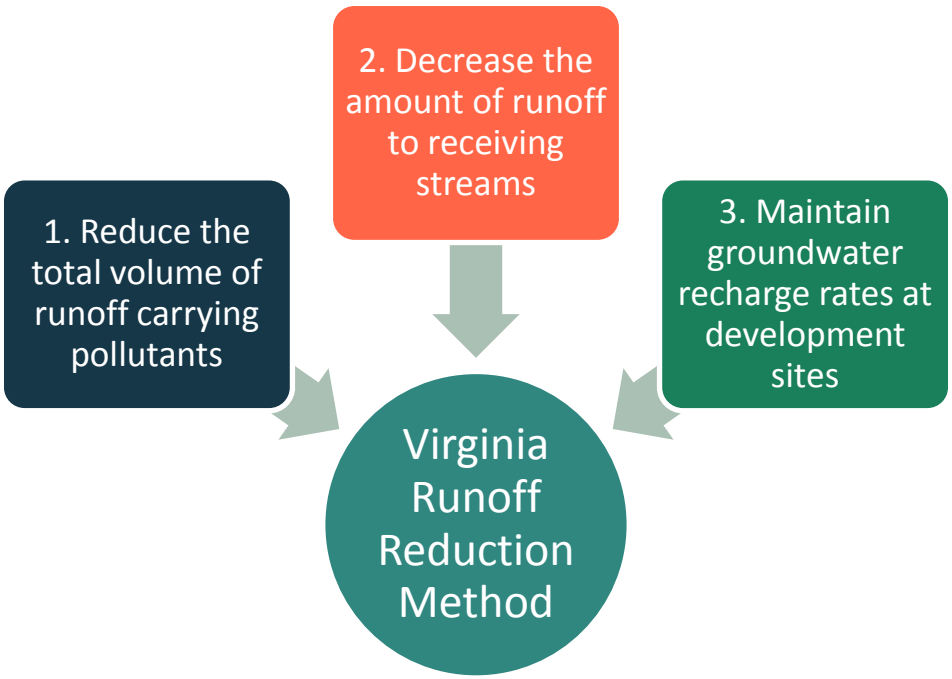
Part II B Water Quality Design Criteria Requirements (9VAC25-870-63)

Table 3-2

Development Scenario	Phosphorus (P) Load
New development	Cannot exceed **0.41** lbs./acre/yr.
Development on prior developed land	
LDA **does not** increase impervious cover from pre-development conditions	
LDA ≥ 1 acre	Must be reduced at least **20%** below pre-development P load
LDA < 1 acre	Must be reduced at least **10%** below pre-development P load
LDA **does** increases impervious cover over pre-development conditions	
LDA ≥ 1 acre	Increased impervious area cannot exceed **0.41** lbs./acre/yr. and on remainder of site must be reduced **20%** below pre-development P load
LDA < 1 acre	Increased impervious area cannot exceed **0.41** lbs./acre/yr. and on remainder of site must be reduced **10%** below pre-development P load
Linear development	Must be reduced **20%** below the pre-development P load
★The total P load must not be required to be reduced below the new development standard unless a more stringent standard has been established by a locality.	

Water quality compliance (9VAC25-870-65)

Compliance with the water quality design criteria of 9VAC25-870-63 shall be determined by using the Virginia Runoff Reduction Method or an equivalent methodology approved by the board.



The 15 BMPs listed below are approved for use as necessary to effectively reduce the P load and runoff volume in accordance with the Virginia Runoff Reduction Method.

1. Vegetated roof
2. Rooftop disconnection
3. Rainwater harvesting
4. Soil amendments
5. Permeable pavement
6. Grass channel
7. Bioretention
8. Infiltration
9. Dry swale
10. Wet swale
11. Sheet flow to filter/open space
12. Extended detention pond
13. Filtering practice
14. Constructed wetland
15. Wet pond

Other approved BMPs found on the Virginia Stormwater BMP Clearinghouse website may be utilized. Design specifications and the pollutant removal efficiencies for all approved BMPs are found on the Virginia Stormwater BMP Clearinghouse website.

BMPs other than those listed on page 20 or on the Clearinghouse shall be reviewed and approved by the Director in accordance with procedures established by the Department.

A VSMP authority **may** limit the use of specific BMPs.

The VSMP authority shall have the discretion to allow the water quality design criteria to be applied to each drainage area of the site. However, where a site drains to more than one hydrologic unit code (HUC), the pollutant load reduction requirements shall be applied independently within each HUC unless reductions are achieved in accordance with a comprehensive stormwater management plan in accordance with 9VAC25-870-92.

Offsite alternatives where allowed in accordance with 9VAC25-870-69 may be utilized to meet the design criteria listed in Table 3-2 (9VAC25-870-63).

Channel means a natural or manmade waterway. (9VAC25-870-10)

Flooding means a volume of water that is too great to be confined within the banks or walls of the stream, water body, or conveyance system and that overflows onto adjacent lands, thereby causing or threatening damage. (9VAC25-870-10)

Concentrated flow is runoff that accumulates or converges into well-defined channels.

Sheet flow is an overland flow or down slope movement of water taking the form of a thin, continuous film over the land. Sheet flow picks up and transports loose soil particles, eroding the site.

Water quantity (9VAC25-870-66)

This section explains what post-development minimum water quantity standards must be met in site design and included in the stormwater management plan.

The water quantity standards cover channel and flood protection for both concentrated and sheet flow. This section also explains how to determine if a project will meet those minimum standards.

Compliance with these minimum standards satisfies the requirements of Minimum Standard 19 of the Erosion and Sediment Control Regulations.

A locality's VSMP authority may establish more stringent standards especially where more stringent requirements are

necessary to address total maximum daily load requirements or to protect exceptional state waters.

Channel protection

The purpose of channel protection criteria is to prevent habitat degradation and erosion in natural streams caused by an increased frequency of bankfull and sub-bankfull stormwater flows. The channel protection criteria seek to minimize downstream channel enlargement and opening that is a common consequence of development.

Concentrated stormwater flow from a development must be released into a stormwater conveyance system and must meet the quantity criteria from a discharge point to the point where the limits of analysis (explained below) is applied for these three conditions following the LDA:

1. Discharge to a **manmade** stormwater conveyance system
    - Conveyance system must convey the post-development peak flow rate from the two-year 24-hour storm event without causing erosion of the system
    - Detention of stormwater or downstream improvements may be incorporated into the approved LDA to meet this criterion at the discretion of the VSMP authority
2. Discharge to a **restored** stormwater conveyance system that has been restored using natural design concepts
    - The development shall be consistent, in combination with other stormwater runoff, with the design parameters of the restored stormwater conveyance system that is functioning in accordance with the design objectives; or

3 types of stormwater conveyance systems
(9VAC25-870-10)

Manmade stormwater conveyance system means a pipe, ditch, vegetated swale, or other stormwater conveyance system constructed by man except for restored stormwater conveyance systems.

Restored stormwater conveyance system means a stormwater conveyance system that has been designed and constructed using natural channel design concepts. Restored stormwater conveyance systems include the main channel and the flood-prone area adjacent to the main channel.

Natural stormwater conveyance system means the main channel of a natural stream and the flood-prone area adjacent to the main channel.

- The requirements below for natural stormwater conveyance systems shall be met

3. Discharge to a **natural** stormwater conveyance system
    - The maximum peak flow rate from the one-year 24-hour storm following the LDA shall be calculated using the energy balance equation:

$$\mathbf{Q}_{Developed} \leq \mathbf{I.F.} \times (\mathbf{Q}_{Pre\text{-}developed} \times \mathbf{RV}_{Pre\text{-}Developed}) \; / \; \mathbf{RV}_{Developed}$$

$Q_{Developed}$	Allowable peak flow rate of runoff from the developed site
$RV_{Developed}$	Volume of runoff from the site in the developed condition
$Q_{Pre\text{-}Developed}$	Peak flow rate of runoff from the site in the pre-developed condition
$RV_{Pre\text{-}Developed}$	Volume of runoff from the site in pre-developed condition
Q_{Forest}	Peak flow rate of runoff from the site in a forested condition
RV_{Forest}	Volume of runoff from the site in a forested condition
I.F.	Improvement factor

★ Under no condition can the post-development peak flow rates be greater than pre-development peak flow rates

★ Under no condition can the post-development peak flow rates be required to be less than the peak flow rate of the site in a forested condition after adjusting for runoff volume

A VSMP authority may use another methodology that has been demonstrated to achieve equivalent results and has been approved by the Board

Limit of analysis - Unless the methodology for natural stormwater conveyance systems is utilized, stormwater conveyance systems must be analyzed for compliance with the channel protection criteria to a point where either:

- **Based on land area**, the site's contributing drainage area is less than or equal to 1% of the total watershed area; or
- **Based on peak flow rate**, the site's peak flow rate from the one-year 24-hour storm is less than or equal to 1% of the existing peak flow rate from the one-year 24-hour storm prior to the implementation of any stormwater quantity control measures

Flood protection

The goal of flood protection is to prevent flood damage to the conveyance system and drainage infrastructure and reduce minor flooding caused by over-bank floods. Over-bank floods are defined as floods which exceed the bankfull capacity of the channel and spill over onto the floodplain, where they can damage property and structures. The key management objective is to protect downstream structures, culverts, and bridges from increased over-bank flooding.

To meet the minimum standards for flood protection, post-development concentrated stormwater flow must be released into a stormwater conveyance system and must meet the following point of discharge criteria for stormwater conveyance systems that either **do** or **do not** experience localized flooding during the 10-year 24-hour storm event:

1. **Do not** experience localized flooding during the 10-year 24-hour storm event:
    - Post-development peak flow rate from the 10-year 24-hour storm event must be confined within the stormwater conveyance system
        - Detention of stormwater or downstream improvements may be incorporated into the approved LDA at the discretion of the VSMP authority
2. **Do** experience localized flooding during the 10-year 24-hour storm event, either:
    - Post-development peak flow rate from the 10-year 24-hour storm event must be confined within the stormwater conveyance system
        - Detention of stormwater or downstream improvements may be incorporated into the approved LDA to meet this criterion at the discretion of the VSMP authority

    Or

    - Post-development peak flow rate released for the 10-year 24-hour storm event must be less than the pre-development peak flow rate from the 10-year 24-hour storm event

- Downstream stormwater conveyance systems do not require any additional analysis to show compliance with flood protection criteria if this option is utilized

Limits of analysis – Unless the post-development peak flow rate for the 10-year 24-hour storm event is less than the pre-development peak flow rate for the 10-year 24 hour storm event, stormwater conveyance systems shall be analyzed for compliance with flood protection criteria to a point where either:

1. The site's contributing drainage area is ≤ 1.0% of the total watershed area draining to a point of analysis in the downstream stormwater conveyance system
2. Based on peak flow rate, the site's peak flow rate from the 10-year 24-hour storm event is ≤ 1.0% of the existing peak flow rate from the 10-year 24-hour storm event prior to the implementation of any stormwater quantity control measures
3. The stormwater conveyance system enters a mapped floodplain or other flood-prone area, adopted by ordinance, of any locality

Sheet flow - Increased volumes of sheet flow resulting from pervious or disconnected impervious areas, or from physical spreading of concentrated flow through level spreaders, must be identified and evaluated for potential impacts on down-gradient properties or resources.

Increased volumes of sheet flow that will cause or contribute to erosion, sedimentation, or flooding of down gradient properties or resources shall be diverted to a stormwater management facility or a stormwater conveyance system that conveys the runoff without causing down-gradient erosion, sedimentation, or flooding. If all runoff from the site is sheet flow and the conditions of this section are met, then no further water quantity controls are required.

Computing pre-development runoff - All pervious lands on the site shall be assumed to be in good hydrologic condition in accordance with the U.S. Department of Agriculture's NRCS standards, regardless of conditions existing at the time of computation. Pre-development runoff calculations utilizing other hydrologic conditions may be utilized provided that it is demonstrated to and approved by the VSMP authority that actual site conditions warrant such considerations.

Pre-development and post-development runoff characteristics and site hydrology - Must be verified by site inspections, topographic surveys, available soil mapping or studies, and calculations consistent with good engineering practices. Guidance provided in the Virginia Stormwater Management Handbook and by the Virginia Stormwater BMP Clearinghouse shall be considered appropriate practices.

Offsite compliance options (9VAC25-870-69)

If an operator cannot meet the water quality design criteria (9VAC25-870-63) onsite, a VSMP authority may allow the operator to meet them offsite.

Offsite options include:

- Controls utilized in accordance with a comprehensive stormwater management plan (9VAC25-870-92) for the local watershed within which a project is located
- A locality pollutant loading pro rata share program (§ 15.2-2243) or similar local funding mechanism
- Nonpoint nutrient offset program (§62.1-44.15:35)
- Other offsite options approved by an applicable state agency or state board
- An operator's additional properties that are within the same hydrologic unit code (HUC) or upstream HUC that the LDA directly discharges to or within the same watershed as determined by the VSMP authority

Offsite options **can** be used under any of the following conditions:

- Less than five acres of land will be disturbed
- Post-development construction P load is less than 10 pounds per year
- At least 75% of the required P reductions are achieved onsite

If at least 75% of the required P nutrient reductions cannot be met onsite, and the operator can demonstrate to the satisfaction of the VSMP authority all of the following, then the required P reductions may be achieved, in whole or in part, offsite:

- Alternative site designs have been considered that may accommodate onsite BMPs

- Onsite BMPs have been considered in alternative site designs to the maximum extent practicable
- Appropriate onsite BMPs will be implemented
- Full compliance with post-development nonpoint nutrient runoff compliance requirements cannot practicably be met onsite

Offsite options are **not** allowed if:

- The selected offsite option does not achieve the necessary P reductions prior to the start of LDA
    - Phased projects - Operator may acquire or achieve offsite P reductions prior to the commencement of each phase of LDA in an amount sufficient for each phase
- Local water quality-based limitations at the point of discharge based on an impaired waters plan or an MS4 program plan

Design storms and hydrologic methods (9VAC25-870-72)

This section specifies the hydrologic methods that may be used to analyze site conditions for the selection and design of BMPs so that the BMPs are in compliance with water quality and quantity design criteria in Part II B. The analysis must be included in the stormwater management plan.

Prescribed design storms are the one-year, two-year, and 10-year 24-hour storms using the site-specific rainfall precipitation frequency data recommended by the U.S. National Oceanic and Atmospheric Administration Atlas 14 (found in Chapter 11 of the 2013 Virginia Stormwater

Hydrology is the science of the characteristics, distribution, and movement of water on and below the earth's surface and in the atmosphere.

Hydrologic methods are used in these Regulations to estimate flow peaks, volumes, and time distribution of stormwater runoff. The analysis of these parameters is fundamental for the design of BMPs.

There are a number of **factors** that affect the nature of stormwater runoff from the site including:

- Rainfall amount and storm distribution
- Drainage area site, shape, and orientation
- Ground cover and soil type
- Slopes of terrain and stream channel(s)
- Relative wetness or dryness of a watershed
- Watershed development potential
- Watershed development potential

Management Handbook).

Unless otherwise specified, the hydrologic analyses must be based on the existing watershed characteristics and the ultimate development conditions.

The analysis in Part II B shall be done using the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) synthetic 24-hour rainfall distribution and models, including, but not limited to:

- TR-55 and TR-20 (computer models)
- Hydrologic and hydraulic methods developed by the U.S. Army Corps of Engineers
- Other standard hydrologic and hydraulic methods

The VSMP authority may allow for the use of the Rational Method for evaluating peak discharges for drainage areas of 200 acres or less, and may allow the use of the Modified Rational Method for evaluating volumetric flows to stormwater conveyances for drainage areas of 200 acres or less.

Stormwater harvesting (9VAC25-870-74)

Stormwater harvesting is encouraged for the purposes of landscape irrigation systems, fire protection systems, toilet flushing, and other water handling systems (non potable) to the extent such systems are consistent with federal, state, and local regulations.

Linear development projects (9VAC25-870-76)

Linear development projects shall control post-development stormwater runoff in accordance with a site-specific stormwater management plan or a comprehensive watershed stormwater management plan (9VAC25-870-92).

Linear development projects are land-disturbing activities that are linear in nature.
Example: construction of electric and telephone utility lines, natural gas lines, highway construction projects, water and sewer lines, etc. (9VAC25-870-10)

Stormwater management impoundment structures or facilities (9VAC25-870-85)

Stormwater management wet ponds and extended detention ponds that are not covered by the Impounding Structure Regulations shall, at a minimum, be engineered for structural integrity for the 100-year storm event.

Karst areas

A study of the geology and hydrology of the area must first been conducted to determine the presence or absence of karst features that may be impacted by stormwater runoff and BMP placement.

- Discharges to a karst feature must still meet the water quality (9VAC25-870-63)and quantity (9VAC25-870-66) design criteria
- Permanent stormwater management impoundment structures or facilities shall only be constructed after completion of a geotechnical investigation that identifies any necessary modifications to the BMP to ensure its structural integrity and maintain its water quality and quantity efficiencies
- The person responsible for the LDA is encouraged to screen for known existence of heritage resources in the karst features
- Any Class V Underground Injection Control Well registration statements for stormwater discharges to improved sinkholes shall be included in the SWPPP

Comprehensive stormwater management plans (9VAC25-870-92)

A locality's VSMP authority may develop comprehensive stormwater management plans (regional stormwater management plans) to be approved by the Department. The plans must meet the water quality objectives, quantity objectives, or both of these Regulations.

Appendix 3-A of the 2013 Stormwater Management Handbook discusses the potential elements of a comprehensive local stormwater management program and how to synchronize independent but related local requirements into a more cohesive and efficient program delivery system.

Plan components:

- Ensure offsite reductions equal to or greater than those that would be required on each contributing site are achieved within the same hydrologic unit code (HUC) or within another locally designated watershed
- Implementation of a combination of channel improvement, stormwater detention, or other measures that are satisfactory to the locality's VSMP authority may be provided to prevent downstream erosion and flooding (water quantity)

If the land use assumptions upon which the plan was based change or if any other amendments are deemed necessary by the locality's VSMP authority, the authority shall provide plan amendments to the Department for review and approval.

During the plan's implementation, the locality's VSMP authority shall document nutrient reductions accredited to the BMPs specified in the plan.

State and federal agencies may develop comprehensive stormwater management plans, and may participate in locality-developed comprehensive stormwater management plans where practicable and permitted by the locality's VSMP authority.

Part II B Knowledge Check

1. What nutrient is measured to control the quality of stormwater discharge from a site after construction?

2. Why is it important to control the quantity of stormwater leaving a site after construction?

3. What are the three conditions that offsite options can be used under to meet required P reductions?

Part II C - Technical Criteria for Regulated Land-Disturbing Activities: Grandfathered Projects and Projects Subject to the Provision of 9VAC25-870-47 B

Definitions (9VAC25-870-93)

This section supplements the definitions provided at the start of the VSMA and the Regulations. Most of these definitions pertain to BMPs specified in the 1999 Virginia Stormwater Management Handbook.

Applicability (9VAC25-870-94)

Part II C applies to grandfathered (9VAC25-870-47 B) LDAs.

General (9VAC25-870-95)

This section specifies the technical and performance criteria applied to grandfathered LDAs.

Water quality (9VAC25-870-96)

Grandfathered projects can achieve compliance by applying either the performance-based criteria or the technology-based criteria to the site or a planning area.

Performance based criteria

Regulated LDAs are divided into four land development situations (Table 4-3). The calculated post-development pollutant runoff load is compared to the calculated pre-development load based upon the average land cover condition or the existing site condition.

A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in Table 4-4 to effectively reduce the pollutant load to the required level based upon the four applicable land development situations in Table 4-3.

Part II c Water Quality Performance-Based Criteria (9VAC25-870-96)

Table 4-3

% Existing impervious cover	% Proposed impervious cover	Pollutant discharge requirement after disturbance
1. ≤ Average land cover condition	< Average land cover condition	No reduction required
2. ≤ Average land cover condition	> Average land cover condition	Cannot exceed existing average land cover condition pollutant discharge
3. > Average land cover condition		Cannot exceed: - Pollutant discharge based on existing conditions less 10%; or - Pollutant discharge based on average land cover condition **Whichever is greater**
4. Served by an existing stormwater management BMP		- Cannot exceed existing discharge based on existing % impervious cover while served by the existing BMP - Existing BMP must show that it was designed and constructed in accordance with proper design standards and specifications, and be in functioning condition

Average land cover condition means a measure of the average amount of impervious surfaces within a watershed, assumed to be 16% or a calculated watershed-specific value for the average land cover conditions as approved by the Chesapeake Bay Local Assistance Board prior to September 13, 2011 (9VAC25-870-93)

Technology based criteria

Post-development stormwater runoff from impervious cover shall be treated by an appropriate BMP as required by the post-development condition percent impervious cover as specified in Table 4-4 on the next page.

Part II C BMP Target Pollutant Removal Efficiencies (9VAC25-870-96)

Table 4-4

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2xWQ Vol)	35%	
Retention basin I (3x WQ Vol)	40%	
Bioretention basin Bioretention filter Extended detention-enhanced Retention basin II (4 x WQ Vol) Infiltration (1 x WQ Vol)	50%	38-66%
Sand filter Infiltration (2 x WQ Vol) Retention basin III (4 x WQ Vol with aquatic bench)	65%	67-100%

*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the department. Innovative or alternate BMPs not included in this table that target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the department.

Stream channel erosion (9VAC25-870-97)

This section describes the requirements that must be met to protect downstream properties and receiving channels from changes to hydrologic characteristics resulting from LDAs.

The VSMP authority shall require compliance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations to protect properties and receiving waterways downstream of any LDA from erosion and damage due to changes in runoff rate of flow and hydrologic characteristics.

The locality's VSMP authority may determine some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow

conditions (top of bank) brought on by LDA or where more stringent requirements are necessary to address TMDL requirements or to protect exceptional waters

Therefore, instead of the reduction of the two-year post-development peak rate of runoff as required by Minimum standard 19, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the one-year, 24-hour duration storm.

A locality's VSMP authority may, by ordinance, or the Board by regulation, adopt more stringent channel analysis criteria or design standards to ensure that the natural level of channel erosion, to the maximum extent practicable, will not increase due to the LDA. These criteria may include, but are not limited to, the following:

- Criteria and procedures for channel analysis and classification
- Procedures for channel data collection
- Criteria and procedures for the determination of the magnitude and frequency of natural sediment transport loads
- Criteria for the selection of proposed natural or manmade channel linings

Flooding (9VAC24-870-98)

The 10-year post-development peak rate of runoff from the development site shall not exceed the 10-year pre-developed peak; or localities may, by ordinance, adopt alternate design criteria based upon geographic, land use, topographic, geologic factors, or other downstream conveyance factors.

Linear development projects shall not be required to control post-development stormwater runoff for flooding, except in accordance with a watershed or regional stormwater management plan.

Regional (watershed-wide) stormwater management plans

(9VAC25-870-99)

Water quality requirements and where allowed, water quantity requirements, may be achieved by utilizing offsite compliance options (9VAC25-870-69) and through the use of comprehensive stormwater management plans (9VAC25-870-92).

Part II C Knowledge Check

The following questions all pertain to grandfathered projects

1. What is the assumed percentage of impervious surface in a watershed?

2. If the percentage of proposed impervious cover for a project is less than the average land cover condition and the existing percentage of impervious cover on the site is less than or equal to the average land cover condition, what is the pollutant discharge requirement?

3. When utilizing technology based criteria, is the appropriate BMP selected based on the pre-development condition or the post-development condition?

4. If utilizing a comprehensive stormwater management plan, what is the requirement for offsite reductions?

Part III – General Provisions Applicable to VSMPs and VSMP Authorities

Applicability (9VAC25-870-100)

Part III establishes:

- Board's procedures for the authorization of a VSMP
- Board's procedures for the administration of a VSMP by a locality's VSMP authority or by other VSMP authorities
- Board and Department oversight of a VSMP

Authority (9VAC25-870-102)

The Board is required to establish standards and procedures for the authorization of an entity to administer a VSMP.

VSMP authority requirements for Chesapeake Bay Preservation Act land-disturbing activities (9VAC25-870-103)

A VSMP authority must regulate runoff associated with Chesapeake Bay Preservation Act LDAs (greater than or equal to 2,500 sq. ft. and less than one-acre). After June 30, 2014, these LDAs do not require completion of a registration statement or require coverage under the Construction GP. However, the activity is subject to the technical criteria and program and administrative requirements set out in 9VAC25-870-51.

A VSMP authority permit, where applicable, shall be issued permitting the LDA.

The VSMP authority shall regulate such land disturbing activity in compliance with the:

- Program requirements in 9VAC25-870-104
- Plan review requirements in 9VAC25-870-108
- Long-term stormwater management facility requirements in 9VAC25-870-112
- Inspection requirements in 9VAC25-870-114

- Enforcement components in 9VAC25-870-116
- Hearing requirements in 9VAC25-870-118
- Exception conditions in 9VAC25-870-122
- Reporting and recordkeeping requirements in 9VAC25-870-126

A locality's VSMP authority shall adopt an ordinance, and other VSMP authorities shall provide program documentation, that incorporates the components of this section. In accordance with subdivision 5 of § 62.1-44.15:28 A, a locality's VSMP authority may collect a permit issuance fee from the applicant of $290 and an annual maintenance fee of $50 for such LDA.

Part III A – Programs Operated by a VSMP Authority

Criteria for programs operated by a VSMP authority (9VAC25-870-104)

- All VSMP authorities shall require compliance with the administrative and technical criteria for LDAs laid out in Part II (9VAC25-870-40 et seq.)
- When a locality's VSMP authority has adopted requirements more stringent than those imposed by these Regulations or implemented a comprehensive stormwater management plan (9VAC25-870-92), the Department shall consider such requirements in its review of state projects within that locality in accordance with Part IV (9VAC25-870-160 et seq.)
- Localities cannot regulate or require prior approval by a locality for a state or federal project unless authorized by separate statute
- A VSMP authority may require, excluding state and federal entities, the submission of a reasonable performance bond or other financial surety and provide for the release of such sureties in accordance with the criteria set forth in § 62.1-44.15:34

Additional requirements for VSMP authorities (9VAC25-870-106)

A locality's VSMP authority must adopt ordinances, and other VSMP authorities must provide program documentation, that ensure compliance with the state permit conditions

of 9VAC25-870-460 L and are at least as stringent as the provisions of the Construction GP (9VAC25-880).

Stormwater management plan review

(9VAC25-870-108)

Review of completeness

The VSMP authority (program administrator) has **15 days** to determine the completeness of a stormwater management plan in accordance with 9VAC25-870-55 and notify the applicant of its determination. If the application is not complete, the VSMP authority must notify the applicant in writing or electronically of the reason(s).

If a plan is complete and the applicant has been notified within 15 days of submission, the VSMP authority (plan reviewer) has **60 days from the time of notification** to review the plan.

If a determination of completeness is not made and communicated to the applicant within the 15 calendar days, the plan is determined complete as of the date of submission, and the VSMP authority (plan reviewer) has **60 days from the date of submission** to review the plan.

The VSMP authority (plan reviewer) has **45 days from the date of resubmission** to review a plan that was previously disapproved.

Plan review

During the review period, the VSMP authority (plan reviewer) must notify the operator or the designated agent in writing of the decision to approve or disapprove the plan. The reason(s) for not approving a plan must be provided in writing.

If a plan meets all the requirements of these Regulations and of the VSMP authority but no action is taken within the time specified above, then the plan is approved.

Modifications

The VSMP authority has **60 days** to respond in writing for plans that have been modified after approval with either an approval or disapproval.

Based on an inspection, the VSMP authority may require amendments to the approved stormwater management plan to address any deficiencies within a time frame set by the VSMP authority.

See diagram on next page for a comparison of the VESC and VSMP plan review process.

Comparison of VSMP and VESCP Plan Review Process

Long-term maintenance of permanent stormwater management facilities (9VAC25-870-112)

VSMP authority must require the provision of long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff. The requirements must be set forth in an instrument recorded in the local land records prior to state permit termination or earlier as required by the VSMP authority and shall at a minimum:

- Be submitted for review and approval prior to the approval of the stormwater management plan
- Be stated to run with the land
- Provide for all necessary access to the property for purposes of maintenance and regulatory inspections
- Provide for inspections and maintenance and the submission of inspection and maintenance reports to the VSMP authority
- Be enforceable by all appropriate governmental parties

At the discretion of the VSMP authority, such recorded instruments need not be required for stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot, provided it is demonstrated to the satisfaction of the VSMP authority that future maintenance of such facilities will be addressed through an enforceable mechanism at the discretion of the VSMP authority.

Inspections (9VAC25-870-114)

The VSMP authority must periodically inspect the LDA during construction for:

- Compliance with the approved erosion and sediment control plan
- Compliance with the approved stormwater management plan

According to the VSMA, VSMP authorities shall provide for **periodic inspections** for the installation of stormwater management measures. (§62.1-44.15:37)

- Development, updating, and implementation of a P2 plan
- Development and implementation of any additional control measures necessary to address a TMDL

Post-construction inspection program - The VSMP authority must establish an inspection program that ensures that stormwater management facilities are maintained after completion of the LDA. Inspection program shall:

- Be approved by the Board
- Ensure that each facility is inspected by the VSMP authority, or its designee, not to include the owner, except as provided below, at least once every five years
- Be documented by records

The VSMP authority may utilize the inspection reports of the owner of a stormwater management facility as part of its established inspection program if the inspection is conducted by a person who is licensed as a professional engineer, architect, landscape architect, or land surveyor; or a person who works under the direction and oversight of the licensed professional; or a person who holds an appropriate certificate of competence from the board.

If a recorded instrument is not required (9VAC25-870-112), a VSMP authority shall develop a strategy for addressing maintenance of stormwater management facilities constructed on an individual residential lot. Such a strategy may include periodic inspections, homeowner outreach and education, or other methods targeted at promoting the long-term maintenance of such facilities. Such facilities shall not be subject to the requirement for an inspection to be conducted by the VSMP authority.

Enforcement (9VAC25-870-116)

A locality's VSMP authority shall incorporate components of the informal and formal administrative enforcement procedures and civil and judicial enforcement procedures listed below.

Informal and formal administrative enforcement procedures may include:

- Verbal warnings and inspection reports

- Notices of corrective action
- Consent orders including civil charges in accordance with § 62.1-44.15:48 D 2
- Notices to comply in accordance with § 62.1-44.15:37
- Public notice and comment periods for proposed settlements and consent special orders pursuant to 9VAC25-870-660

Civil and criminal judicial enforcement procedures may include:

- Criminal penalties (§ 62.1-44.15:48 B and C)
- Injunctions (§§§ 62.1-44.15:25, 62.1-44.15:42 and 62.1-44.15:48 D 1)

A locality's VSMP authority must develop policies and procedures that outline the steps to be taken regarding enforcement actions under the VSMA and Regulations and local ordinances.

The locality's VSMP authority has the discretion to impose a maximum penalty of $32,500 per violation per day in accordance with 62.1-44.15:48 A. Such penalty may reflect the degree of harm caused by the violation and may take into account the economic benefit to the violator from noncompliance. Violations include, but are not limited to:

1. No state permit registration
2. No SWPPP
3. Incomplete SWPPP
4. SWPPP not available for review
5. No approved erosion and sediment control plan
6. Failure to install stormwater management BMPs or ESCs
7. Stormwater BMPs or erosion and sediment controls improperly installed or maintained
8. Operational deficiencies
9. Failure to conduct required inspections
10. Incomplete, improper, or missed inspections

Authorization to administer a VSMP program shall not remove from the Board the authority to enforce the provisions of the VSMA and attendant regulations.

The Department may terminate state permit coverage during its term and require application for an individual state permit or deny a state permit renewal application for failure to comply with state permit conditions or on its own initiative in accordance with the VSMA and Regulations.

Civil penalties recovered by a locality's VSMP authority shall be paid into the treasury of the locality in which the violation occurred and are to be used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the locality and reducing environmental pollution in such manner as the court may direct.

The VSMP authority may use additional guidance concerning suggested penalty amounts provided by the Department.

Hearings (9VAC25-870-118)

The VSMP authority shall ensure that any permit applicant, permittee, or person subject to state permit requirements under the VSMA aggrieved by any action of the VSMP authority taken without a formal hearing, or by inaction of the VSMP authority, shall have a right to a hearing pursuant to § 62.1-44.15:44 and shall ensure that all hearings held under these Regulations are conducted in a manner consistent with § 62.1-44.26 or as otherwise provided by law. The provisions of the Administrative Process Act (§ 2.2-4000 et seq.) shall not apply to decisions rendered by localities but appeals shall be conducted in accordance with local appeal procedures.

Exceptions (9VAC25-870-122)

A VSMP authority may grant exceptions to the technical requirements of Part II B or Part II C. An exception may be granted provided the following:

- The exception is the minimum necessary to afford relief
- Reasonable and appropriate conditions shall be imposed so that the intent of the VSMA and Regulations are preserved

- Granting the exception will not confer any special privileges that are denied in other similar circumstances
- Exception requests are not based upon conditions or circumstances that are self-imposed or self-created

Remember, economic hardship alone is not sufficient reason to grant an exception from the requirements of the Regulations. The VSMP authority cannot grant an exception to the requirement that the LDA obtain required state permits, nor approve the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse, except where allowed under Part II C. Exceptions to requirements for P reductions shall not be allowed unless offsite options have been considered and found not available.

A record of all exceptions granted shall be maintained by the VSMP authority.

Reports and record keeping (9VAC 25-870-126)

On a fiscal year basis (July 1 to June 30), a VSMP authority shall report to the Department by October 1 of each year. The information provided shall include:

- Information on each permanent stormwater management facility completed during the fiscal year
  - Type of stormwater management facility
  - Geographic coordinates
  - Acres treated
  - Surface waters or karst features into which the facility will discharge
- Number and type of enforcement actions during the fiscal year
- Number of exceptions granted during the fiscal year

A VSMP authority shall keep records in accordance with the following:

- Project records, including approved stormwater management plans, shall be kept for **three** years after state permit termination or project completion

- Stormwater management facility inspection records shall be documented and retained for at least **five** years from the date of inspection
- Construction record drawings shall be maintained **in perpetuity** or until a stormwater management **facility is removed**
- All registration statements submitted in accordance with 9VAC25-870-59 shall be documented and retained for **at least three years** from the date of project completion or state permit termination

Part III A Knowledge Check

1. What part of the Regulations explains the administrative and technical criteria must VSMP authorities require LDAs to comply with?

2. A locality's VSMP authority must adopt ordinances and other VSMP authorities must provide program documentation that ensures compliance with what?

3. How long does the VSMP authority have to determine the completeness of a stormwater management plan?

4. If a plan is determined complete, and notification has been given within 15 days of submission, how long does the authority have to review the plan?

Part III B – Department of Environmental Quality Procedures for Review of VSMPs

Authority and applicability (9VAC25-870-142)

This part specifies the criteria that the Department will utilize in reviewing a VSMP authority's administration of a VSMP.

Virginia stormwater management program review (9VAC25-870-144)

The Department shall coordinate the once per five year review with its other program reviews for the same entity. The review shall consist of the following:

- Consultation with the VSMP administrator or designee
- Review of the local ordinance(s) and other applicable documents
- Review of a subset of the plans approved by the VSMP authority for consistency of application including exceptions granted and calculations or other documentation that demonstrates that required nutrient reductions are achieved using appropriate onsite and off-site compliance options
- Review of the funding and staffing plan developed in accordance with 9VAC25-870-148
- Review of inspection of regulated activities
- Review of enforcement actions and an accounting of amounts recovered through enforcement actions where applicable

If deficiencies are found, the Department shall provide results and compliance recommendations to the Board in the form a corrective action plan and schedule within 120 days of the completion of a review.

Part III C – State Water Control Board Authorization Procedures for Virginia Stormwater Management Programs

Authority and applicability (9VAC25-870-146)

This part describes the specific elements required to be incorporated into a VSMP and the procedures the Board will follow to make its approval.

Virginia stormwater management program administrative requirements (9VAC25-870-148)

A VSMP shall provide for the following:

1. Identification of the authorities accepting complete registration statements and of the authorities completing plan review, plan approval, inspection, and enforcement
2. Submission and approval of ESC plans and stormwater management plans
3. Requirements to ensure compliance with the SWPPP (9VAC25-870-54), stormwater management plan (9VAC25-870-55), and pollution prevention plan (9VAC25-870-56)
4. Requirements for inspections and monitoring of construction activities by the operator for compliance with local ordinances
5. Requirements for long-term inspection and maintenance of stormwater management facilities
6. Collection, distribution to the state if required, and expenditure of fees
7. Enforcement procedures and civil penalties where applicable
8. Policies and procedures to obtain and release bonds, if applicable
9. Procedures for complying with the applicable reporting and recordkeeping requirements in 9VAC25-870-126

A locality's VSMP authority shall adopt and enforce an ordinance(s) that incorporate(s) the components set out in 1 through 5 and 7 above. Other VSMP authorities shall provide supporting documentation that incorporates the components set out in 1 through 5 above.

Part III B & IIIC Knowledge Check

1. How often does the Department review each Board approved VSMP?

2. If the Board determines that the deficiencies noted in the Department's review of a VSMP and its ordinances will cause the VSMP to be out of compliance of the VSMA and Regulations, what are the next steps for the VSMP authority?

Part IV – Technical Criteria and State Permit Application Requirements for State Projects

Technical criteria and requirements for state projects (9VAC25-870-160)

State permit applications prepared for state projects must comply with the technical criteria outlined in Part II and, to the maximum extent practicable, any locality's VSMP authority's technical requirements. It is the state agency's responsibility to demonstrate that the locality's VSMP authority's technical requirements are not practical for the project under consideration.

The Department may establish criteria for selecting either the site or a planning area on which to apply the water quality criteria. As a minimum the state permit application shall contain the following:

- The location and the design of the proposed stormwater management facilities
- Overall site plan with pre-developed and post-developed condition drainage area maps
- Comprehensive hydrologic and hydraulic computations of the pre-development and post-development runoff conditions for the required design storms, considered individually
- Calculations verifying compliance with the water quality requirements
- A description of the requirements for maintenance of the stormwater management facilities and a recommended schedule of inspection and maintenance
- The identification of a person or persons who will be responsible for maintenance
- All stormwater management plans and erosion and sediment control plans associated with a state permit application shall be appropriately sealed and signed by a professional in adherence to all minimum standards and requirements pertaining to the practice of that profession

Requirements for state stormwater management annual standards and specifications (9VAC25-870-170)

Standards and specifications may, and after June 30, 2014 shall, be submitted to the Department by a state agency on an annual basis. Such standards and specifications shall be consistent with the requirements of the VSMA and Regulations, including the Construction General Permit and the Erosion and Sediment Control Law and Regulations. Each project shall obtain coverage issued under the state permit prior to commencing LDAs.

State agency stormwater management standards and specifications describe how land disturbing activities shall be conducted and shall include, but are not limited to:

- Technical criteria to meet the requirements of the VSMA and Regulations
- Provisions for the preparation of stormwater management and ESC plans for each project
    - The individual plans, to the maximum extent practicable, shall comply with any locality's VSMP authority's technical requirements adopted pursuant to the VSMA
    - It shall be the responsibility of the state agency to demonstrate that the locality's VSMP authority's technical requirements are not practicable for the project under consideration
- Provisions for the long-term responsibility and maintenance of stormwater management control devices and other techniques specified to manage the quantity and quality of runoff, including an inspection and maintenance schedule, shall be developed and implemented
- Provisions for erosion and sediment control and stormwater management program administration, plan design, review and approval, and construction inspection and enforcement
- Provisions for ensuring that responsible personnel and contractors obtain certifications or qualifications for erosion and sediment control and stormwater management comparable to those required for VSMP authorities

- Implementation of a project tracking and notification system to the Department of all LDAs
- Requirements for documenting onsite changes as they occur

Copies of such stormwater management specifications and standards including, but not limited to, design manuals, technical guides and handbooks, shall be submitted to the Department.

Administrative procedures: stormwater management permit applications (9VAC25-870-180)

This section describes the requirements and procedures that the Department must follow when providing Construction GP coverage to projects submitted by state agencies who are not subject to local government VSMP authorities.

Within **30 days** after receipt of a complete state permit application (registration statement) submitted by a state agency, the Department shall issue or deny the state permit.

- The Department shall provide its decision in writing to the state agency that submitted the state permit application
- Denied state permit applications shall be revised and resubmitted to the Department

Approval of a state permit application (registration statement) for a state project shall be subject to these requirements:

- The state agency shall comply with all applicable requirements of the state permit and these Regulations, and shall certify that all land clearing, construction, land development, and drainage will be done according to the state permit
- The land development shall be conducted only within the area specified in the state permit
- No changes may be made to a plan for which a state permit has been issued without review and written approval by the Department
- The Department shall be notified **one week** prior to the pre-construction meeting and **one week** prior to the commencement of LDA

- The Department shall conduct **random** inspections of the project to ensure compliance with the state permit
- The Department shall require inspections and reports from the state agency responsible for compliance with the state permit and to determine if the measures required in the state permit provide effective stormwater management

Compliance with the state permit shall be subject to the following conditions:

- Where inspection by the responsible state agency reveals deficiencies in carrying out a permitted activity, the responsible state agency shall ensure compliance with the issued state permit, state permit conditions, and plan specifications
- Where inspections by Department personnel reveal deficiencies in carrying out the state permit, the responsible state agency shall be issued a notice to comply, with corrective actions specified and the deadline within which the work shall be performed
- Whenever the Commonwealth or any of its agencies fail to comply within the time provided in a notice to comply, the director may petition the secretary of a given secretariat or an agency head for a given state agency for compliance. Where the petition does not achieve timely compliance, the director shall bring the matter to the Governor for resolution
- Where compliance will require the appropriation of funds, the director shall cooperate with the appropriate agency head in seeking such an appropriation; where the director determines that an emergency exists, he shall petition the Governor for funds from the Civil Contingency Fund or other appropriate source
- The department may also seek compliance through other means specified in the VSMA and Regulations

Administrative procedures: maintenance and inspections

(9VAC25-870-200)

Responsibility for the operation and maintenance of stormwater management facilities shall remain with the state agency and shall pass to any successor or owner. If portions of the land are to be sold, legally binding arrangements shall be made to pass the basic

responsibility to successors in title. These arrangements shall designate for each state project the property owner, governmental agency, or other legally established entity to be permanently responsible for maintenance.

At a minimum, a stormwater management facility shall be inspected by the responsible state agency on an **annual basis** and **after any storm which causes the capacity of the facility's principal spillway to be exceeded**. During construction of the stormwater management facilities, the Department shall make inspections on a **random basis**.

The Department shall require inspections and reports from the state agency responsible for ensuring compliance with the state permit and to determine if the measures required in the state permit provide effective stormwater management. Inspection reports shall be maintained as part of the land disturbance project file.

Part IV Knowledge Check

1. What technical criteria do state projects have to comply with?

2. What is the purpose of state stormwater management annual standards?

3. At a minimum, how often should stormwater management facilities by inspected by the responsible state agency?

Part V – Reporting

Reporting on stormwater management (9VAC25-870-210)

State agencies shall report **annually** to the Department on the extent to which stormwater management programs have reduced nonpoint source pollution to the Commonwealth's waters and mitigated the effects of localized flooding.

The report shall provide the following:

- Number and types of stormwater management facilities installed in the reporting year
- Drainage area or watershed size served
- Receiving stream or hydrologic unit
- Summary of monitoring data
- Other data useful in determining the effectiveness of the programs and BMP technologies in current use